

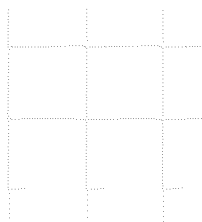
To: Black, Ned[Black.Ned@epa.gov]
From: Dunkelman, Tom
Sent: Wed 8/19/2015 8:01:26 PM
Subject: Fwd: Gallup Independent Article

Did you see this article. The professor states that the biggest concern is bioaccumulation of lead. Is that a true statement? I didn't realize that lead was a bioaccumulation concern like Mercury.

Sent from my iPhone

Begin forwarded message:

From: "Harris-Bishop, Rusty" <Harris-Bishop.Rusty@epa.gov>
Date: August 19, 2015 at 12:46:57 PM MST
To: "Manzanilla, Enrique" <Manzanilla.Enrique@epa.gov>, "Moxley, Bret" <Moxley.Bret@epa.gov>, "Waldon, MARGARET" <Waldon.Margaret@epa.gov>, "Yogi, David" <Yogi.David@epa.gov>, "Harris-Bishop, Rusty" <Harris-Bishop.Rusty@epa.gov>, "Robberson, Bill" <Robberson.Bill@epa.gov>, "Dunkelman, Tom" <Dunkelman.Tom@epa.gov>, "Calanog, Steve" <Calanog.Steve@epa.gov>, "Guria, Peter" <Guria.Peter@epa.gov>, "Pease, Amanda" <Pease.Amanda@epa.gov>, "Allen, HarryL" <Allen.HarryL@epa.gov>, "Lawrence, Kathryn" <Lawrence.Kathryn@epa.gov>, "Moore, Kathi" <Moore.Kathi@epa.gov>, "Aycok, Mary" <Aycok.Mary@epa.gov>, "Cook, Anna-Marie" <Cook.Anna-Marie@epa.gov>, "Yogi, David" <Yogi.David@epa.gov>, "Zito, Kelly" <ZITO.KELLY@EPA.GOV>, "Tenley, Clancy" <Tenley.Clancy@epa.gov>, "Hiatt, Gerald" <Hiatt.Gerald@epa.gov>, "Black, Ned" <Black.Ned@epa.gov>, "Sanchez, Yolanda" <Sanchez.Yolanda@epa.gov>
Cc: "Kluesner, Dave" <kluesner.dave@epa.gov>, "Grantham, Nancy" <Grantham.Nancy@epa.gov>, "MacIntyre, Mark" <Macintyre.Mark@epa.gov>, "Acevedo, Janie" <Acevedo.Janie@epa.gov>, "Vela, Austin" <Vela.Austin@epa.gov>
Subject: Gallup Independent Article



Hi everyone:

Here is the article in the Gallup Independent yesterday regarding lead levels in the river. Does this sample comport with our sampling data? I'm assuming this is an unfiltered sampled, but can we explain these numbers? This article is getting a lot of attention.

Rusty

Tests: Lead 3X higher in San Juan

By Vida Volkert

Staff writer eastnavajo@gallupindependent.com

SHIPROCK — What type of contaminants released from the Gold King Mine disaster in Colorado into the Animas River traveled through Shiprock via the San Juan River during the days of the spill?

A water sample collected by the Independent from the east side of the Shiprock bridge Aug. 9 has been analyzed by Hall Environmental Analysis Laboratory in Albuquerque.

The sample was tested for various minerals, including arsenic, copper, lead, selenium, aluminum, cadmium, calcium, iron, potassium, zinc, chloride, sulfate and mercury, as well as for pH levels.

According to the results, finalized by the lab Friday, all minerals listed except for cadmium, selenium and mercury were found in the sample.



Cayla Nimmo/Independent

During an emergency chapter meeting in Shiprock Aug. 9, residents expressed concern about the contaminants seeping into the surrounding plant life of the San Juan River.

Lead, for instance, is regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10 percent of tap water samples exceed the action level, water systems must take additional steps. Under such regulations, the maximum amount of lead permitted is 0.015 milligrams per liter. The sample from Shiprock contained three times the allowed level, 0.059 milligrams of lead per liter.

Metals found include: 8.4 milligrams of chloride per liter, 82 milligrams of sulfate per liter, 24 milligrams of aluminum per liter, 63 milligrams of calcium per liter, 25 milligrams of iron per liter, 6.4 milligrams of potassium per liter, 0.11 milligrams of zinc per liter, 0.0066 of arsenic and 0.039 of copper.

The pH level of the water collected from Shiprock in the same sample was 8.21.

Gary Rayson, a professor of chemistry at New Mexico State University, specializes in the area of analytical chemistry with an emphasis on the determination of heavy metals in water. He said he has followed the Animas River situation with great interest as both a citizen of New Mexico and as an analytical chemist. He reviewed the data provided by Hall Environmental Analysis Laboratory pertaining to the water sample collected by the Independent.

"The only levels reported that may be of concern are the zinc and lead levels. Lead is especially problematic because it bioaccumulates in organisms (e.g., fish, plants, mammals, people). As such, ingestion of lead is undesirable at any level," Rayson wrote in an email Monday.

Under the Safe Drinking Water Act, EPA sets legal limits on the levels of certain contaminants in drinking water.

The color of water

The water sample was collected from Shiprock at 12:56 p.m. Aug. 9 when a yellow pigment was observed in the water in the San Juan moving under the bridge.

According to Rayson, the pigment was most likely due to suspended solids in the water and not the result of dissolved material. "The methods reported for the analyses were those prescribed for the analysis of water, not suspended solids," he wrote about the data reported by Hall Environmental Analysis Laboratory. "It is the composition of these solids that is of interest because these will slowly dissolve and will contribute to the concentration of materials in the water. Some minerals are a source of inconvenience such as calcium, the primary contributor to 'hard' water. Other minerals can be significant health concerns (e.g., arsenic and lead). Without analyses of sediment samples and the suspended solids from the mine water release, it is difficult to ascertain the long-term impact of this situation."

The EPA reported on its website that sediment samples were collected in the Animas River from Bakers Bridge to north of Durango on Aug. 11. The data has been validated, and it is available on the website.

EPA indicates on its website that water quality samples were collected from the northern border of New Mexico to Navajo Nation beginning on Aug. 7.

There is no indication that sediment samples were collected from the Shiprock area or the Navajo Nation.

Ban lifted

The state of New Mexico Saturday lifted a ban on San Juan County's drinking water systems' supply connection to the Animas and San Juan rivers. According to the news release, data collected from the rivers by the New Mexico Environment Department shows that all levels of contaminants are below all applicable state water quality standards, including those established to protect human health. Sampling and analysis started following the state's Aug. 6 notification from the EPA of the approach of contamination from the Gold King Mine spill.

The Arizona Department of Environmental Quality examined data provided by states upstream of Lake Powell and closer to the Gold King Mine spill and concluded on Monday that water quality conditions in the San Juan River upstream of Lake Powell are generally consistent with prespill conditions.

"Based on what we're seeing with the water flowing into Lake Powell, we don't expect there to be noticeable change in water quality in Arizona," ADEQ Director Misael Cabrera was quoted in a news release issued Monday.

ADEQ reported it will continue coordinating with public health and environmental agencies in Arizona, Colorado, New Mexico, Utah, as well as with U.S. Environmental Protection Agency and Navajo Nation officials to gather, analyze and share water quality data with each other and the public as it becomes available.

— *Independent reporter Kathy Helms contributed to this report*



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